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Situational uses of syndromic surveillance

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Abstract:

Since 2001, many state and local health departments have implemented automated systems to monitor healthcare use and to promptly identify and track epidemics and other public health threats. In 2007-08, we conducted case studies of selected events with actual or potential public health impacts to determine whether and how health departments and hospitals used these new systems. We interviewed public health and hospital representatives and applied qualitative analysis methods to identify response themes. So-called "syndromic" surveillance methods were most useful in situations with widespread health effects, such as respiratory illness associated with seasonal influenza or exposures to smoke from wildfires. In other instances, such as a tornado or hazardous material exposures, these systems were useful for detecting or monitoring health impacts that affected relatively few people, or they were used to affirm the absence of outbreaks following natural disasters or the detection of a potential pathogen in air samples. Typically, these data supplemented information from traditional sources to provide a timelier or fuller mosaic of community health status, and use was shaped by long-standing contacts between health department and hospital staffs. State or local epidemiologists generally preferred syndromic systems they had developed over the CDC BioSense system, citing lesser familiarity with BioSense and less engagement in its development. Instances when BioSense data were most useful to state officials occurred when analyses and reports were provided by CDC staff. Understanding the uses of surveillance information during such events can inform further investments in surveillance capacity in public health emergency preparedness programs.

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Resource Description

Communication: M

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: M

audience to whom the resource is directed

Health Professional

Early Warning System: M

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resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure: M

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature: M

resource focuses on specific type of geography

None or Unspecified

Geographic Location: M

resource focuses on specific location

United States

Health Co-Benefit/Co-Harm (Adaption/Mitigation): □

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact: **☑**

specification of health effect or disease related to climate change exposure

General Health Impact

Intervention: M

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Medical Community Engagement:

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: **☑**

format or standard characteristic of resource

Research Article

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Timescale: M

time period studied

Time Scale Unspecified